

## **ABSTRACT**

An apparatus includes a low magnetic-coercivity layer of material (LMC layer) having a majority electron-spin-polarization (M-ESP), an energy-gap coupled with the LMC layer, wherein a flow of spin-polarized electrons having an electron-spin-polarization anti-parallel to the LMC layer are injected via the energy-gap, to change the M-ESP of the LMC layer. A non-magnetic material is in electrical communication with the LMC layer and provides a spin-balanced source of current to the LMC layer, responsive to the injection of spin-polarized electrons into the LMC layer.